



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name 51645 Series
Product use Inkjet printing
Version # 06
Revision date 08-Apr-2010
CAS # Mixture
Company identification Hewlett-Packard Company
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2. Hazards Identification

Emergency overview Contact with skin and eyes may result in irritation.

Acute health effects

Any potential hazards are presumed to be due to exposure to the components.

Skin contact

2-pyrrolidone
Contact with skin may result in irritation.

Eye contact

2-pyrrolidone
Contact with eyes may result in irritation.
Isopropyl Alcohol
Contact with eyes may result in severe irritation.

Inhalation

2-pyrrolidone
Inhalation may result in respiratory irritation.
Isopropyl Alcohol
Inhalation may cause drowsiness or dizziness.

Ingestion

2-pyrrolidone
Ingestion may result in nausea, vomiting and diarrhea.

Potential health effects

Routes of exposure

Potential routes of overexposure to this product are skin and eye contact

Inhalation of vapor and ingestion are not expected to be significant routes of exposure for this product under normal use conditions.

Complete toxicity data are not available for this specific formulation

Chronic health effects

Carbon Black: Chronic inhalation studies performed with fine dust particles resulted in lung tumors in animals. The IARC classification was based upon these results. IARC also concluded "there is inadequate evidence in humans for the carcinogenicity of carbon black." Inhalation of fine dust particles is not expected to occur during normal conditions of use of this ink.

Carcinogenicity

Carbon black is classified by the IARC as a Group 2B carcinogen (the substance is possibly carcinogenic to humans).
None of the other ingredients in this preparation are classified as carcinogens according to ACGIH, EU, IARC, MAK, NTP or OSHA.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Isopropyl Alcohol	67-63-0	< 2.5
Carbon black	1333-86-4	< 5
2-pyrrolidone	616-45-5	< 15
Water	7732-18-5	< 80

Composition comments This ink supply contains an aqueous ink formulation. This product has been evaluated using criteria specified in 29 CFR 1910.1200 (Hazard Communication Standard).

4. First Aid Measures

First aid procedures

Eye contact	Do not rub eyes. Immediately flush with large amounts of clean, warm water (low pressure) for at least 15 minutes or until particles are removed. If irritation persists get medical attention.
Skin contact	Wash affected areas thoroughly with mild soap and water. If irritation persists get medical attention.
Inhalation	Move to fresh air. If symptoms persist, get medical attention.
Ingestion	If ingestion of a large amount does occur, seek medical attention.

5. Fire Fighting Measures

Flammable properties	None known.
Extinguishing media	
Suitable extinguishing media	CO2, water, dry chemical, or foam
Unsuitable extinguishing media	None known.
Protection of firefighters	
Specific hazards arising from the chemical	None known.
Specific methods	None established.
Hazardous combustion products	Refer to section 10.

6. Accidental Release Measures

Personal precautions	Wear appropriate personal protective equipment.
Environmental precautions	Do not let product enter drains. Do not flush into surface water or sanitary sewer system.
Other information	Soak up with inert absorbent material. Slowly vacuum or sweep the material into a bag or other sealed container. Dispose of in compliance with federal, state, and local regulations. See also section 13 Disposal considerations.

7. Handling and Storage

Handling	Avoid contact with skin, eyes and clothing.
Storage	Keep out of the reach of children. Keep away from excessive heat or cold.

8. Exposure Controls / Personal Protection

Occupational exposure limits

ACGIH

Components	Type	Value
Carbon black (1333-86-4)	TWA	3.5000 mg/m3
Isopropyl Alcohol (67-63-0)	STEL	400.0000 ppm
	TWA	200.0000 ppm

U.S. - OSHA**Components**

	Type	Value
Isopropyl Alcohol (67-63-0)	PEL	400.0000 ppm
		980.0000 mg/m3
	STEL	1225.0000 mg/m3
		500.0000 ppm
	TWA	400.0000 ppm
		980.0000 mg/m3

U.S. - Tennessee**Components**

	Type	Value
Carbon black (1333-86-4)	TWA	3.5000 mg/m3
Isopropyl Alcohol (67-63-0)	STEL	1225.0000 mg/m3
		500.0000 ppm
	TWA	980.0000 mg/m3
		400.0000 ppm

Exposure guidelines

Exposure limits have not been established for this product.

Engineering controls

Use in a well ventilated area.
Provide adequate ventilation.

Personal protective equipment**Eye / face protection**

Not required under intended use.

Skin protection

Protected gloves not required under intended use.

Respiratory protection

For use other than intended use (such as in the event of a large spill), goggles and respirators may be required.

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

General

Use personal protective equipment to minimize exposure to skin and eye.

9. Physical & Chemical Properties**Appearance**

Not available.

Color

Black.

Odor

Not available.

Odor threshold

Not available.

Physical state

Liquid

Form

Not available.

pH

7.8 - 8.4

Melting point

Not available.

Freezing point

Not available.

Boiling point

>= 200 °F (>= 93.3 °C)

Flash point

131 - 136 °F (55 - 57.8 °C) Pensky-Martens Closed Cup; No ignition, sustained combustion or flashing detected using the Sustained Combustibility Test (method in US 49CFR173, Appendix H).

Evaporation rate

Not determined

Flammability limits in air, upper, % by volume

Not available.

Flammability limits in air, lower, % by volume

Not available.

Vapor pressure

Not determined

Vapor density

Not available.

Specific gravity

1 - 1.2

Relative density

Not available.

Solubility (water)

Soluble in water

Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	>= 2 cp
Bulk density	1 - 1.2 gm/ml
VOC	< 3 %

10. Chemical Stability & Reactivity Information

Chemical stability	Stable under recommended storage conditions.
Incompatible materials	Incompatible with strong bases and oxidizing agents.
Hazardous decomposition products	Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.
Possibility of hazardous reactions	Will not occur.

11. Toxicological Information

Carcinogenicity

ACGIH Carcinogens

Carbon black (CAS 1333-86-4)	A4 Not classifiable as a human carcinogen.
Isopropyl Alcohol (CAS 67-63-0)	A4 Not classifiable as a human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

Carbon black (CAS 1333-86-4)	2B Possibly carcinogenic to humans.
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IARC Monographs: Evidence of carcinogenicity in humans

Carbon black (CAS 1333-86-4)	Inadequate data.
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Serious eye damage/eye irritation Not available.

Skin sensitization Not available.

Symptoms and target organs

Target Organs (NIOSH)

Carbon black (CAS 1333-86-4)	Eyes Respiratory system
Isopropyl Alcohol (CAS 67-63-0)	Eyes Respiratory system Skin

Further information Complete toxicity data are not available for this specific formulation. Refer to Section 2 for potential health effects and Section 4 for first aid measures.

12. Ecological Information

Aquatic toxicity	LC50/96h/Fathead minnows =>750 mg/L
Persistence and degradability	Not available.
Partition coefficient	Not determined

13. Disposal Considerations

Disposal instructions Dispose of in compliance with federal, state, and local regulations. HP's Planet Partners (trademark) supplies recycling program enables simple, convenient recycling of HP original inkjet and LaserJet supplies. For more information and to determine if this service is available in your location, please visit <http://www.hp.com/recycle>.

14. Transport Information

DOT

Not regulated as dangerous goods.

General

Not a dangerous good under United States DOT, IATA, ADR, IMDG, or RID. No ignition, sustained combustion, or flashing detected, using the Sustained Combustibility Test prescribed in the UN Manual of Tests and Criteria, Part III subsection 32.5.2. Refer to Dangerous Goods Regulations Section 3.3.1.3. No ignition, sustained combustion or flashing detected using the sustained combustibility test (method in US CFR173, Appendix H).

IATA

Basic shipping requirements:

Proper shipping name Not applicable
Hazard class Not applicable
UN number None
Packing group N/A

Additional information:

Packaging exceptions None

Basic shipping requirements:

Labels required None

Additional information:

Packaging non bulk None

IMDG

Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations US TSCA 12(b): Contains tetrahydrofuran (CASRN 109-99-9), subject to export notification requirements.

CERCLA (Superfund) reportable quantity

None

Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical Yes

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance No

Section 311 hazardous chemical No

State regulations

US - Pennsylvania RTK - Hazardous Substances: Listed substance

2-pyrrolidone (CAS 616-45-5) Listed.
Carbon black (CAS 1333-86-4) Listed.
Isopropyl Alcohol (CAS 67-63-0) Listed.

Regulatory information All chemical substances in this HP product have been notified or are exempt from notification under chemical substances notification laws in the following countries: US (TSCA), EU (EINECS/ELINCS), Switzerland, Canada (DSL/NDL), Australia, Japan, Philippines, South Korea, New Zealand, and China.

16. Other Information

Other information This MSDS was prepared in accordance with USA OSHA Hazard Communications regulation (29 CFR 1910.1200).

HMIS® ratings Health: 1
Flammability: 2
Physical hazard: 0

NFPA ratings Health: 1
Flammability: 2
Instability: 0

Disclaimer This Safety Data Sheet document is provided without charge to customers of Hewlett-Packard Company. Data is the most current known to Hewlett-Packard Company at the time of preparation of this document and is believed to be accurate. It should not be construed as guaranteeing specific properties of the products as described or suitability for a particular application. This document was prepared to the requirements of the jurisdiction specified in Section 1 above and may not meet regulatory requirements in other countries.

Issue date 08-Apr-2010

This data sheet contains changes from the previous version in section(s):

Product and Company Identification: Alternate Trade Names
Composition / Information on Ingredients: Ingredients
Fire Fighting Measures: Fire & Explosion Properties
5. Fire Fighting Measures: Specific hazards arising from the chemical
Physical & Chemical Properties: Physical & Chemical Properties
9. Physical & Chemical Properties: Color
11. Toxicological Information: Further information
14. Transport Information: General
Regulatory Information: Risk Phrases - Labeling

Manufacturer information

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Explanation of abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstracts Service
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CFR	Code of Federal Regulations
COC	Cleveland Open Cup
DOT	Department of Transportation
EPCRA	Emergency Planning and Community Right-to-Know Act (aka SARA)
IARC	International Agency for Research on Cancer
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
RCRA	Resource Conservation and Recovery Act
REC	Recommended
REL	Recommended Exposure Limit
SARA	Superfund Amendments and Reauthorization Act of 1986
STEL	Short-Term Exposure Limit
TCLP	Toxicity Characteristics Leaching Procedure
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act
VOC	Volatile Organic Compounds